

Transforming Medical Education to Provide Gender-Affirming Care for Transgender and Gender-Diverse Patients: A Policy Brief

Paul D. Juarez, PhD¹

Aramandla Ramesh, PhD²

Jayne S. Reuben, PhD³

Asa E. Radix, MD, PhD⁴

Cheryl L. Holder, MD⁵

Katherine Y. Brown, EdD¹

Mohammad Tabatabai, PhD⁶

Patricia Matthews-Juarez, PhD^{4,7}

¹Department of Family & Community Medicine, Meharry Medical College, Nashville, Tennessee

²Department of Biochemistry, Cancer Biology, Neuroscience & Pharmacology, Meharry Medical College, Nashville, Tennessee

³Department of Biomedical Sciences, Texas Agricultural and Mechanical University School of Dentistry, Dallas, Texas

⁴Callen-Lorde Community Health Center in New York, New York, New York

⁵Department of Family Medicine at Herbert Wertheim College of Medicine, Florida International University, Miami, Florida

⁶School of Graduate Studies & Research, Meharry Medical College, Nashville, Tennessee

⁷Office of Strategic Initiatives & Innovation, Meharry Medical College, Nashville, Tennessee

Conflicts of interest: authors report none.

CORRESPONDING AUTHOR

Aramandla Ramesh
Department of Biochemistry, Cancer
Biology, Neuroscience & Pharmacology
Meharry Medical College
1005 Dr. D.B. Todd Jr. Blvd
Nashville, TN 37208
aramesh@mmc.edu

ABSTRACT

Transgender and gender-diverse (TGD) patients experience a greater burden of health disparities compared with their heterosexual/cisgender counterparts. Some of the poorer health outcomes observed in these populations are known to be associated with the prevalence of implicit bias, bullying, emotional distress, alcoholism, drug abuse, intimate partner violence, sexually transmitted infections (eg, human immunodeficiency virus and human papilloma virus), and cancer. The TGD populations face unique barriers to receiving both routine and gender-affirming health care (acquiring hormones and gender-affirming surgeries). Additional barriers to implementing affirming care training for TGD patients are lack of expertise among medical education faculty and preceptors both in undergraduate and in graduate medical education programs. Drawing on a systematic review of the literature, we propose a policy brief aimed at raising awareness about gender-affirming care among education planners and policy makers in government and advisory bodies.

Stakeholders

- Curriculum coordinators, directors, and deans in medical schools (undergraduate and graduate medical education programs), medical school faculty, and academicians
- Education policy makers in government and advisory bodies (Health Resources and Services Administration, National Institutes of Health, Association of American Medical Colleges, Liaison Committee on Medical Education, Southern Association of Colleges and Schools, Council on Education for Public Health, National Medical Association, American Medical Association, and other medical societies)

Key Messages

- The gender-affirming care policy brief provides information for accessing learning resources for trainees, educators, and patients.
- The policy brief can help government organizations, health care professionals, and facilities adopt and popularize recommendations.
- This policy brief can contribute to the provision of high-quality care to sexual and gender minorities.
- This policy brief calls health care professionals to practice cultural humility in addressing the health of sexual and gender minorities to promote health equity.

Policy Options

- Existing information on gender-affirming care should be considered and evaluated in proposing and accepting any curricular intervention.
- Input from stakeholders (public, patients, community advocacy groups, and health care professionals) will strengthen educational policies.

Policy Relevance

Transgender health care has been identified as an emerging area that has not received adequate attention in medical education or residency training, resulting in a workforce that is ill prepared to provide culturally appropriate care for this population.

Executive Summary

Medical students and residents lack appropriate and sufficient training on how to provide gender-affirming and inclusive care to transgender and gender-diverse patients. This proposed policy brief advocates for equipping medical students and residents with knowledge and skills to provide culturally competent care. It is expected that the curricular interventions on gender-affirming care will increase patient satisfaction and quantifiably improve transgender patient care.

Ann Fam Med 2023;21(Suppl_2):S92-S94. <https://doi.org/10.1370/afm.2926>

INTRODUCTION

Transgender people have a gender identity that differs from their assigned sex at birth.¹ Because transgender medicine is not adequately covered in medical curricula, few clinicians are comfortable with providing care, including gender-affirming care, to transgender and gender-diverse (TGD) patients.^{2,3} These patients experience high rates of psychiatric and substance use disorders and stress that include long-term effects of stigma, prejudice, and discrimination.⁴ Published reports reveal that 20% of TGD individuals have been refused medical care because of their gender identity, while another 6% reported an unpleasant encounter with a health care professional.⁵ Although there has been an increasing call for medical schools to ensure students are trained to provide culturally appropriate care for lesbian, gay, bisexual, transgender, and queer or questioning (LGBTQ) patients, there is a gap regarding coverage of gender-affirming care in medical school education and residency training programs.⁶⁻⁸

A 2009-2010 survey administered to medical school deans about LGBTQ-related content in medical education found that the median reported time allotted to LGBTQ-related topics was brief (eg, approximately 5 hours over 4 years) and that the dedicated amount of time, covered content, and perceived quality of instruction varied substantially.⁹ Medical students and residents in primary care settings need to be trained to address TGD patients in a gender-neutral manner. Other care considerations should include conducting communications with patients in a respectful, culturally sensitive manner, including appropriate patient history taking and use of patient-identified names and pronouns.¹⁰ In addition, an increasing number of medical residency specialty and subspecialty programs, including obstetrics and gynecology, endocrinology, urology, surgery, and psychiatry, have identified a need for residents to receive training in gender-affirming care for transgender patients.⁹⁻¹⁴

Dedicated curriculum time and content should include a focus on the medical management of patients receiving gender-affirming hormones; this is a vital competency regardless of clinician specialty and whether hormone prescribing is part of the clinician's practice. In general, in most medical school curricula, very little time has been dedicated to addressing the unique gender-affirming primary care needs of transgender patients.¹¹ Some suggested primary care considerations for TGD patients include increased comfort and knowledge regarding sexual history taking; greater awareness of transgender patients' anatomy; and familiarity with gender dysphoria diagnoses, hormone therapy, and health disparities faced by this patient population.¹¹

METHODS

To assess how the future health care workforce is being trained to provide gender-affirming care to TGD patients, we conducted a systematic review of the literature from 2000 to

2020. We used PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines¹⁵ to identify original studies that focused on medical school training to increase knowledge and comfort, as well as to improve the attitudes and skills of medical students and residents working with transgender, gender-diverse, and gender-nonconforming patients. Our search used multiple databases: Google Scholar, PubMed, OVID, ERIC, SCOPUS, Web of Science, CINAHL, PsycInfo, and MedEdPORTAL. The search strategy cross-referenced key words for transgender populations (transgender, gender identity, transsexual, gender reassignment, gender affirmation, gender queer, gender nonconforming, gender dysphoria, transgender, and gender nonconforming) with key words for medical students and residents (medical student, medical resident) and medical education (medical school curriculum, basic science, clinical, rotations, objective structured clinical examination, standardized patient). We extracted data from the articles, focusing on criteria that included study description, study design, and educational intervention. We evaluated study quality using published recommendations.¹⁶

RESULTS

Out of 27,090 articles screened and subjected to various inclusion and exclusion criteria and full-text review, 36 articles had educational intervention components that focused on transgender, gender-diverse, and gender-nonconforming care and medical students and/or residents.¹⁷ All of the studies were qualitative studies having quasi-experimental and pre-experimental (theoretical) designs. The majority focused on medical student training, with few including residents. Educational/training methods included didactic sessions, patient panels, standardized patients, small group discussions, and student-delivered presentations. Overall, combining a variety of training methods vs using a single method appeared to hold more promise in the provision of affirming/inclusive care training at the undergraduate medical education level.

DISCUSSION

Greater efforts are needed to prepare the health care workforce to provide culturally appropriate care for the TGD population. Our systematic review provides insight on the current status of medical education in this area, highlighting limitations and challenges, and allows us to put forth policy recommendations that program planners and policy makers can use going forward.

Limitations and Challenges

Several limitations and challenges must be addressed in transforming medical education to provide gender-affirming care for TGD patients. Medical schools and residency programs may be resistant to additional curriculum demands. We found a dearth of evaluations of training approaches that used longer-term assessments of changes in attitudes, comfort

levels, and beliefs among students and residents. In the studies we reviewed, measures to assess competency (eg, objective structured clinical examinations, practice observation) were lacking. There was also scant research on graduate medical education training in affirming care. We did not identify any articles that addressed training in affirming care that was specific to TGD populations having additional vulnerabilities, such as migrant farm workers or individuals experiencing homelessness. Finally, there was a lack of input/evaluation from TGD patients to gauge patient satisfaction.

Policy Recommendations

We offer the following policy recommendations for transforming medical education to better provide gender-affirming care for the TGD population:

- Standardize measures to assess learning outcomes regarding affirming and inclusive care.
- Develop curriculum modules on affirming care and test these modules in medical schools.
- Engage TGD people with legal, health care, finance, social work, and community engagement backgrounds for input and feedback through a community of practice or working group.
- Monitor health outcomes of TGD patients to assess quality of care received in both outpatient and inpatient care settings.
- Encourage clinicians experienced in TGD health care to mentor less experienced students and clinicians (during clerkship, residency, and early years of practice).
- Emphasize privacy, confidentiality, and cultural humility in health care settings providing care to TGD patients.
- Stress the importance of creating a welcoming environment to eliminate microaggression and macroaggression, and other actions resulting from implicit bias and transphobia.
- Provide funding to create model programs in gender-affirming care generally, and in rural areas and for populations with additional vulnerabilities.
- Conduct longitudinal research to evaluate changes in attitudes and competencies in gender-affirming care among both students and residents.

Conclusions

This proposed policy brief advocates for equipping medical students and residents with knowledge and skills to provide culturally competent care to the TGD population. We expect that curricular interventions on gender-affirming care will increase patient satisfaction and quantifiably improve transgender patient care.

 [Read or post commentaries in response to this article.](#)

Key words: gender-affirming care; transgender and gender-diverse patients; primary care; medical education; curricula; health care workforce; vulnerable populations; LGBTQ

Submitted June 1, 2022; submitted, revised, October 2, 2022; accepted October 19, 2022.

Funding support: This work was funded by the US Department of Health and Human Services (HHS), Health Resources and Services Administration (HRSA) under cooperative agreement UH1HP30348.

Disclaimer: The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the US Government.

Acknowledgments: We are thankful to our community of practice members for proactively participating in our meetings and offering constructive criticism.

References

1. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition: DSM-5*. American Psychiatric Association; 2013.
2. Eriksson SES, Safer JD. Evidence-based curricular content improves student knowledge and changes attitudes towards transgender medicine. *Endocr Pract*. 2016;22(7):837-841. [10.4158/EP151141.OR](#)
3. Fraser L, Knudson G. Education needs of providers of transgender population. *Endocrinol Metab Clin North Am*. 2019;48(2):465-477. [10.1016/j.ecl.2019.02.008](#)
4. McDowell A, Streed CG Jr. Health disparities. In: Keuroghlian AS, Potter J, Reisner SL, eds. *Transgender and Gender Diverse Health Care: The Fenway Guide*. McGraw Hill; 2022. Accessed Sep 15, 2022. <https://accessmedicine.mhmedical.com/content.aspx?bookid=31046§ionid=259324799>
5. Stroumsa D, Wu JP. Welcoming transgender and nonbinary patients: expanding the language of "women's health." *Am J Obstet Gynecol*. 2018;219(6):585.e1-585.e5. [10.1016/j.ajog.2018.09.018](#)
6. Vance SR Jr, Deutsch MB, Rosenthal SM, Buckelew SM. Enhancing pediatric trainees' and students' knowledge in providing care to transgender youth. *J Adolesc Health*. 2017;60(4):425-430. [10.1016/j.jadohealth.2016.11.020](#)
7. Reisner SL, Bradford J, Hopwood R, et al. Comprehensive transgender healthcare: the gender affirming clinical and public health model of Fenway Health. *J Urban Health*. 2015;92(3):584-592. [10.1007/s11524-015-9947-2](#)
8. Liang JJ, Gardner IH, Walker JA, Safer JD. Observed deficiencies in medical student knowledge of transgender and intersex health. *Endocr Pract*. 2017;23(8):897-906. [10.4158/EP171758.OR](#)
9. Obedin-Maliver J, Goldsmith ES, Stewart L, et al. Lesbian, gay, bisexual, and transgender-related content in undergraduate medical education. *JAMA*. 2011;306(9):971-977. [10.1001/jama.2011.1255](#)
10. Bruessow D, Poteat T. Primary care providers' role in transgender healthcare. *JAAPA*. 2018;31(2):8-11. [10.1097/01.JAA.0000529780.62188.c0](#)
11. Dubin SN, Nolan IT, Streed CG Jr, Greene RE, Radix AE, Morrison SD. Transgender health care: improving medical students' and residents' training and awareness. *Adv Med Educ Pract*. 2018;9:377-391. [10.2147/AMEP.S147183](#)
12. Davidge-Pitts C, Nippoldt TB, Danoff A, Radziejewski L, Natt N. Transgender health in endocrinology: current status of endocrinology fellowship programs and practicing clinicians. *J Clin Endocrinol Metab*. 2017;102(4):1286-1290. [10.1210/je.2016-3007](#)
13. Hirschtritt ME, Noy G, Haller E, Forstein M. LGBT-specific education in general psychiatry residency programs: a survey of program directors. *Acad Psychiatry*. 2019;43(1):41-45. [10.1007/s40596-018-1008-1](#)
14. Schechter LS, Cohen M. Gender confirmation surgery: a new frontier in plastic surgery education. *Plast Reconstr Surg*. 2016;138(4):784e-785e. [10.1097/PRS.0000000000002594](#)
15. Moher D, Liberati A, Tetzlaff J, Altman DG; PRISMA Group. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *J Clin Epidemiol*. 2009;62(10):1006-1012. [10.1016/j.jclinepi.2009.06.005](#)
16. Hammick M, Dornan T, Steinert Y. Conducting a best evidence systematic review. Part 1: from idea to data coding. BEME Guide No. 13. *Med Teach*. 2010;32(1):3-15. [10.3109/01421590903414245](#)
17. Cooper RL, Ramesh A, Radix AE, et al. Affirming and inclusive care training for medical students and residents to reducing health disparities experienced by sexual and gender minorities (SGM): a systematic review. [Published online ahead of print March 22, 2022.] *Transgend Health*. [10.1089/trgh.2021.0148](#)